

ABSTRACT

An optical power control system is provided that may be used in connection with an optical transmitter, receiver or transceiver module. The optical power control system comprises: (1) an array of optoelectronic devices; (2) an array of optical elements; (3) the array of optical elements optically aligned to the array of optoelectronic devices in such a manner that one or more optical elements is optically aligned to one or more optoelectronic devices; (4) a light-receiving device; and (5) a reflector proximate to the array of optical elements, the reflector optically orientated with the array of optoelectronic devices and the light-receiving device such that some emission from at least one optoelectronic device is reflected on at least a portion of the light-receiving device. The optical elements may be optical fibers and may be packaged in a ferrule. The light-receiving device may be a photo-detector or a light pipe. A feedback loop connects the light-receiving device to the array of optoelectronic devices so as to adjust the output of the array of optoelectronic devices in response to the emission detected by the light-receiving device. The reflector scatters the emission from the optoelectronic device, and it may be adapted to a bottom surface of a ferrule. In another embodiment, optical resin is dispensed proximate to the array of optoelectronic devices and light-receiving device. Emission from at least one optoelectronic device is reflected onto the light-receiving device by the optical resin.